

# commonly misused substances

## Commonly Misused Substances

In 2004, 22.5 million Americans aged 12 or older were classified as having substance dependence or abuse in the past year.<sup>1</sup> Also referred to as substance use disorders, dependence on and abuse of alcohol and illicit drugs, which include the nonmedical use of prescription drugs, are defined using

the American Psychiatric Association's criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition (DSM-IV). Dependence reflects a more severe substance problem than abuse; individuals are classified with abuse of a particular substance only if they are not dependent on that substance.<sup>2</sup> For more information on the criteria used in defining dependence and abuse, consult the *2004 National Survey on Drug Use and Health*, which is available on the Web at [www.oas.samhsa.gov/nsduh.htm](http://www.oas.samhsa.gov/nsduh.htm).

In particular, the methamphetamine (meth) epidemic, which began in the West and is moving east, is having a devastating effect on our country.<sup>3</sup> One of the most disturbing aspects of this drug is the impact it has on children. Law enforcement officials are finding that some parents who use meth are neglecting and abusing their children. Many of these children are also being exposed to the harmful side effects from production of the drug if they live near a meth lab.<sup>4</sup>

Meth is primarily a rural phenomenon, with around 75 percent of counties in the Northwest and Southwest reporting it as their biggest drug problem. However, only 4 percent of counties in the more urbanized Northeast region report meth as their biggest drug problem.<sup>5</sup> According to Substance Abuse and Mental Health Services Administration (SAMHSA) Administrator Charles Curie, as documented in a July 25, 2005, SAMHSA press release, "The alarming growth of methamphetamine use and its popularity nationwide can be explained by the drug's wide availability, ease of production, low cost, and its highly addictive nature."



Meth destroyed me—it cost me my marriage, my relationship with my children, and my friends' and family's trust. Worst of all, it almost cost

me the life of my youngest daughter. I used meth for the first time in February 1999. It didn't take very long for me to start shooting it up on a regular basis. I went into labor with my baby six weeks early, and I think it's because that night, I shot up meth. I am so lucky that she is healthy now. In time, I finally understood what this drug was doing to me, and I knew that I had to stop for good. So I did. I now battle awful cravings and powerful urges, but I have been clean since November 13, 2004—and every day is just as hard as the previous one. I was able to get clean through my own perseverance and the help of a good friend who I am currently engaged to marry. I attend support meetings that help me get some solid ground to stand on for my children. I am not just someone you read about—I am a real person. I can only hope that my story is found by those who need it, and that they can learn from my mistakes and save their own lives.

**Jennifer Romano**

*Meth Recovery Advocate*

Substance use among full-time college undergraduates also continues to be a serious issue nationwide. In 2004, young adults aged 18 to 22 who were enrolled full time in college were more likely than young adults not enrolled full time to use alcohol, binge drink, and drink heavily.<sup>6</sup>

For all types of substance use disorders, however, millions of lives have been improved dramatically through recovery.<sup>7</sup> Most people in recovery say that they received some help in tackling their disorder, such as mutual help groups and professional programs including in-patient or outpatient counseling or psychiatric care.<sup>8</sup> People with substance use disorders get better with support from their communities, and in doing so, they change their own lives and help build a stronger, healthier community.

The following are the facts about the most commonly misused substances in the United States.

## Alcohol

### **Basic Facts:**

- Alcohol can affect people no matter how it is consumed. One 12-ounce bottle of beer or a 5-ounce glass of wine (about a half-cup) has as much alcohol as a 1.5-ounce shot of liquor.<sup>9</sup>
- Drinking alcohol leads to a loss of coordination, poor judgment, slowed reflexes, distorted vision, memory lapses, and blackouts.<sup>10</sup>
- Consumption of alcohol can increase the risk of certain cancers, especially those of the liver, esophagus, throat, and larynx (voice box). Heavy drinking can cause liver cirrhosis (scarring), immune system problems, brain damage, and harm to the fetus during pregnancy.<sup>11</sup>
- Even drinking at moderate levels can affect driving ability, interact with medications, and lead to alcohol-related birth defects.<sup>12</sup>
- Recent studies have shown that early alcohol use may have detrimental effects on the developing brain, perhaps leading to problems with cognition later in life.<sup>13</sup>

### **Prevalence:**

- Alcohol dependence is a major public health problem and is the fourth leading cause of disability worldwide.<sup>14</sup>
- In 2004, 50.3 percent of Americans aged 12 or older (121 million people) were current drinkers of alcohol. As many as 55 million (22.8 percent) participated in binge drinking, defined as 5 or more drinks on at least 1 occasion, within 30 days prior to being surveyed.<sup>15</sup>

- Young adults aged 18 to 22 who were enrolled full time in college were more likely than their peers not enrolled full time to use alcohol, binge drink, and drink heavily in 2004. Past-month alcohol use was reported by 62.4 percent of full-time college students (5 million) compared with 55.7 percent of people aged 18 to 22 who were not currently enrolled full time (7 million).<sup>16</sup>
- Binge and heavy alcohol use rates for college students were 43.4 percent (3.5 million) and 18.6 percent (1.5 million), respectively, compared with 39.4 percent (5 million) and 13.5 percent (1.7 million), respectively, for other people aged 18 to 22. Heavy alcohol use is defined as 5 or more drinks on the same occasion on at least 5 different days in the past month.<sup>17</sup>
- Combined data from 2003 and 2004 indicate that among pregnant women aged 15 to 44, 11.2 percent (or 285,000 people) reported using alcohol in the past month, and 4.5 percent (or 114,000 people) reported binge drinking in the past month.<sup>18</sup>

## Anabolic Steroids

### *Basic Facts:*

- Anabolic steroids are synthetic derivatives of the male hormone testosterone. They promote the growth of skeletal muscle and increase lean body mass.<sup>19</sup>
- Steroids can be taken orally or via injection with a needle. Some consequences of steroid use are increased risk of heart attacks and stroke, liver problems, stunted growth, infertility, and testicular shrinkage. Steroids also may increase irritability and aggression.<sup>20</sup>
- Common street names for anabolic steroids include roids and juice.<sup>21</sup>

### *Prevalence:*

- It is estimated that hundreds of thousands of people aged 18 and older misuse steroids at least once a year.<sup>22</sup>
- The percentage of high school seniors who had ever used steroids in their lifetimes decreased from 4 percent in 2002 to 3.4 percent in 2004.<sup>23</sup>

## Cocaine and “Crack”

### *Basic Facts:*

- Cocaine is a powerfully addictive stimulant that directly affects the brain. One form of cocaine is hydrochloric salt, a white powder that dissolves in water and can be taken either intravenously or through the nose. The other form, freebase (crack), is cocaine that has not been neutralized by an acid and can be smoked.<sup>24</sup>

- The medical complications associated with cocaine use include disturbances in heart rhythm and heart attacks, respiratory effects such as chest pain and respiratory failure, and neurological effects such as stroke.<sup>25</sup> The interaction between cocaine and alcohol is the most common two-substance combination that results in drug-related death.<sup>26</sup>

**Prevalence:**

- In 2004, there were 2 million current cocaine users (0.8 percent of Americans aged 12 or older), and 467,000 (or 0.2 percent) of them used crack.<sup>27</sup>
- The proportion of treatment admissions for primary cocaine abuse declined from 17 percent in 1993 to 14 percent in 2003.<sup>28</sup>
- Smoked cocaine (crack) represented 72 percent of all cases where people were admitted to treatment for primary cocaine abuse in 2003.<sup>29</sup>

## **Ecstasy (also known as MDMA, or methylenedioxyamphetamine)**

**Basic Facts:**

- Ecstasy (MDMA) is a synthetic illicit drug that causes both hallucinogenic and stimulant effects. It most commonly is encountered at all-night dance parties (raves) and at techno parties and nightclubs. MDMA is generally sold as a tablet to be taken orally.<sup>30</sup>
- Researchers at Duke University have reported that MDMA causes brain and neurological damage.<sup>31</sup> Using MDMA can cause confusion, depression, anxiety, sleeplessness, craving for the drug, and paranoia.<sup>32</sup>
- People who take MDMA also risk dehydration, hyperthermia, and heart or kidney failure if using the drug during physical exertion or in hot environments, ultimately facing the possibility of death. People with circulatory problems or heart disease face particular risks because MDMA can increase heart rate and blood pressure.<sup>33</sup>

**Prevalence:**

- MDMA use among people aged 12 or older declined from 676,000 users in 2002 to 470,000 users in 2003. This number did not change between 2003 and 2004.<sup>34</sup>
- According to customs and drug enforcement officials, highlighted in a report by *USA Today* on April 22, 2005, MDMA use among teenagers is fading in popularity because post-9/11 improvements in airport security have made it more difficult to smuggle the drug into the

United States from Europe. Tightened security has made the drug less available and more expensive, causing teenagers to turn to cheaper, more available drugs.<sup>35</sup>

## Hallucinogens

### **Basic Facts:**

- Hallucinogens, including lysergic acid diethylamide (LSD), mescaline, and psilocybin mushrooms, are drugs that disrupt a person's ability to think and communicate rationally and can distort one's perception of reality.<sup>36</sup>
- Drugs such as phencyclidine (PCP) and ketamine, which were initially developed as general anesthetics for surgery, distort perceptions of sight and sound and produce feelings of detachment and dissociation from the environment and self.<sup>37</sup>
- In addition to causing short-term effects on perception and mood, hallucinogens are associated with psychotic-like episodes that can occur long after a person has taken the drug and can cause respiratory depression and heart abnormalities.<sup>38</sup>

### **Prevalence:**

- Hallucinogens were used by 929,000 people, or 0.4 percent of Americans aged 12 or older, in 2004.<sup>39</sup>
- From 2003 to 2004, there was an increase in the rate of dependence on or abuse of hallucinogens from 0.1 to 0.2 percent of the population (an increase from 321,000 to 449,000 people).<sup>40</sup>
- The most common hallucinogen other than LSD is psilocybin mushrooms, also known as "shrooms."<sup>41</sup>
- From 1994 to 2002, reports of LSD in drug abuse-related emergency department visits declined more than 80 percent nationally.<sup>42</sup>

## Heroin

### **Basic Facts:**

- Heroin is processed from morphine. It can be injected, inhaled (snorted), or smoked.<sup>43</sup>
- Heroin use is associated with serious health conditions, including fatal overdose, spontaneous abortion, collapsed veins, and infectious diseases, including HIV/AIDS and hepatitis.<sup>44</sup>

### **Prevalence:**

- In 2004, there were an estimated 166,000 current heroin users, or 0.1 percent of Americans aged 12 or older.<sup>45</sup>

- Admissions to treatment facilities for primary heroin abuse increased from 12 percent of all admissions in 1993 to 15 percent in 2003. The average age of admissions was 36.<sup>46</sup>
- In the second half of 2003, heroin was involved in 47,604 drug-related emergency department visits.<sup>47</sup>

## Inhalants

### **Basic Facts:**

- The term “inhalants” refers to more than 1,000 different household and commercial products that can be intentionally misused by inhaling them through the mouth or nose for an intoxicating effect. These products are composed of volatile solvents and substances commonly found in commercial adhesives, lighter fluids, cleaning solutions, and paint products.<sup>48</sup>
- A correlation has been found between the use of inhalants and problems in school, such as failing grades. Inhalant users can suffer physical consequences ranging from nausea and vomiting to damaged lungs, paralysis, and death.<sup>49</sup>

### **Prevalence:**

- In 2004, an estimated 857,000 people had used inhalants for the first time within the last year, and the average age of first-time use was 16.<sup>50</sup>
- Inhalant use increased among children in the 12<sup>th</sup> grade from 2004 to 2005.<sup>51</sup>

## Marijuana

### **Basic Facts:**

- Marijuana is the most commonly used illicit drug and is usually the first drug used by a person who uses illicit drugs.<sup>52</sup>
- Marijuana use impairs physical and mental health and cognitive abilities. Heavy marijuana use critically lowers learning skills, and daily use may result in overall reduced intellectual functioning.<sup>53, 54</sup>
- Recent research points to an association between early marijuana use and a heightened risk of developing schizophrenia or other psychological disorders.<sup>55, 56, 57</sup>

### **Prevalence:**

- In 2004, 4.5 million people were dependent on or abused marijuana, which represents 1.9 percent of Americans aged 12 or older.<sup>58</sup> An estimated 2.1 million people had used marijuana for the first time within the last year—approximately 6,000 people per day.<sup>59</sup>

- Data from 2002 and 2003 indicate that an estimated 90.8 million people aged 18 or older had used marijuana at least once in their lifetimes.<sup>60</sup>

## Methamphetamine/Amphetamines

### *Basic Facts:*

- Amphetamines and methamphetamine are central nervous system stimulants. They can be consumed orally, or by smoking, snorting, intravenous injection, or inhalation.<sup>61</sup>
- Drugs known collectively as methamphetamine (meth) have been nicknamed crank, ice, crystal, speed, and many other regional variations.<sup>62</sup>
- Meth has been known to cause heart failure, brain damage, stroke, and sometimes death. It can also cause many psychological changes including anger, panic, paranoia, hallucinations, and aggressive acts that can lead to suicide.<sup>63</sup>

### *Prevalence:*

- Meth is a growing problem that is now national in scope. It is the leading drug-related local law enforcement problem in the country.<sup>64</sup>
- While primarily a rural phenomenon, the increasingly widespread production, distribution, and use of meth now affect urban, suburban, and rural communities nationwide.<sup>65</sup>
- Nearly 12 million Americans aged 12 or older (4.9 percent) have tried meth, and 1.4 million (0.6 percent) used it in the past year in 2004.<sup>66</sup>
- In 2004, the average age of first time meth use was 22.1.<sup>67</sup>
- The number of meth users who met criteria for illicit drug dependence or abuse in the past year increased from 164,000 in 2002 to 346,000 in 2004.<sup>68</sup>

## Prescription Drugs

### *Basic Facts:*

- Prescription drugs are safe and effective when used correctly, but can lead to abuse and addiction if misused.<sup>69</sup> Nonmedical use of these drugs is defined as the use of prescription-type drugs that were not prescribed for someone by a physician, or were used for the experience or feeling they cause.<sup>70</sup>
- There are three types of prescription drugs that are commonly misused:
  - **Opioids:** These are narcotics such as morphine, oxycodone, and codeine. They are prescribed by physicians to treat pain from cancer, terminal illness, severe injury, or surgery.

Misuse and abuse of opioids may lead to dependence and uncomfortable withdrawal symptoms when use is reduced or stopped. Withdrawal symptoms include muscle and bone pain, diarrhea, vomiting, cold flashes, and involuntary leg movements.<sup>71</sup>

- **Central nervous system (CNS) depressants:** These drugs may be prescribed by physicians to treat anxiety and sleep disorders. These medications include barbiturates, such as mephobarbital (Mebaral®) and pentobarbital sodium (Nembutal®), and benzodiazepines, such as diazepam (Valium®), chlordiazepoxide HCl (Librium®) and alprazolam (Xanax®). Withdrawal from CNS depressants can be difficult, even dangerous. All CNS depressants work by slowing the brain's activity. When people stop taking them, the brain's activity may rebound and race out of control, possibly leading to seizures and other harmful consequences. For this reason, someone who is thinking about discontinuing CNS depressant therapy or who is suffering withdrawal from a CNS depressant should visit a physician.<sup>72</sup>
- **Stimulants:** Used to increase alertness and physical activity, they often are prescribed to treat narcolepsy, attention deficit hyperactivity disorder, and obesity. Some common medications include Dexedrine® to treat narcolepsy and Ritalin® to treat attention deficit hyperactivity disorder. Taking inappropriately high doses of a stimulant may result in an irregular heartbeat, dangerously high body temperature, cardiovascular failure, or lethal seizures.<sup>73</sup>

**Prevalence:**

- People using pain relievers nonmedically represented the largest number of new users of any type of illicit drug in 2004. During 2004, 2.4 million people used pain relievers nonmedically for the first time.<sup>74</sup>
- In 2004, 6 million people aged 12 or older (2.5 percent) were current users of psychotherapeutic drugs taken nonmedically. These include a total of 4.4 million who used pain relievers, 1.6 million who used tranquilizers, 1.2 million who used stimulants, and 0.3 million who used sedatives.<sup>75</sup>
- In 2003, 20.8 million Americans aged 12 or older had used prescription-type stimulants nonmedically at least once in their lifetimes.<sup>76</sup>
- The prevalence of people who had used oxycodone nonmedically in their lifetimes increased from an estimated 11.8 million people in 2002 to 13.7 million people in 2003.<sup>77</sup>

- In the second half of 2003, opiates/opioid analgesics (pain relievers) accounted for 17 percent of emergency department visits related to the misuse/abuse of drugs.<sup>78</sup>
- Opiates are the second-most frequent reason for being admitted to treatment among older adults, after alcohol. A recent study found that the proportion of older adults (ages 55 and older) with opiates as their primary substance of abuse increased from 6.8 percent to 12 percent from 1995 to 2002.<sup>79</sup>

## Tobacco

### Basic Facts:

- Researchers have identified more than 4,800 chemical compounds in tobacco smoke; of these, at least 69 cause cancers in humans and animals.<sup>80</sup>



I truly found life when I finally realized that rehabilitation was the only answer out of my addiction. Before cocaine took over my life, I was very

successful and happily married with two precious children. Then, I lost everything! I hated myself! I graduated from a rehabilitation program in 2001 and I felt my life was back together. I was happy, but there was something missing. After searching for that missing component in my life, I began to work at a rehabilitation program to help save peoples' lives and give back to society.

### Mark Koss

Personnel Procurement Officer

- Cigarette smoking causes approximately 440,000 deaths annually in the United States.<sup>81</sup> It is also the most preventable cause of death in the country.<sup>82</sup>
- Smoking is associated with an increased risk for at least 15 types of cancers, such as esophageal, cervical, kidney, bladder, and stomach. It is the most important risk factor for lung cancer.<sup>83</sup>
- Research has shown that women's smoking during pregnancy increases the risk of pregnancy complications, premature deliveries, low-birth-weight infants, stillbirths, and sudden infant death syndrome (SIDS).<sup>84</sup>

### Prevalence:

- An estimated 70.3 million Americans (29.2 percent of the population aged 12 or older) were current users of a tobacco product in 2004: 59.9 million people (24.9 percent) smoked cigarettes, 13.7 million people (5.7 percent) smoked cigars, 7.2 million people (3 percent) used smokeless tobacco, and 1.8 million people (0.8 percent) smoked tobacco in pipes.<sup>85</sup>

- Fewer Americans currently smoked cigarettes in 2004 than in 2002, a decline from 26 percent to 24.9 percent (or from 60.3 million to 59.9 million people). Young adults aged 18 to 25 have the highest rate of cigarette use within the past month, with a rate of 39.5 percent (or 12.7 million people).<sup>86</sup>
- Combined data from 2003 and 2004 indicate that 18 percent of pregnant women aged 15 to 44 (or 460,000 people) smoked cigarettes in the past month.<sup>87</sup>

**For additional *National Alcohol and Drug Addiction Recovery Month (Recovery Month)* materials, visit the *Recovery Month Web* site at [www.recoverymonth.gov](http://www.recoverymonth.gov) or call 1-800-662-HELP.**

**For additional information about commonly misused substances, treatment, and recovery, please visit SAMHSA's Web site at [www.samhsa.gov](http://www.samhsa.gov).**

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